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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,955	08/29/2000	Shunsuke Furukawa	7217/62370	9871

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Jay H. Maioli
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, NY 10036

EXAMINER

HUBER, PAUL W

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/649,955

Applicant(s)

FURUKAWA ET AL.

Examiner

Paul Huber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) 4-7, 17-20, 29-32, 41-44, 53-57 and 65-67 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36-40, 45-52 and 58-61 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-16, 21-28, 33-35, 62-64 and 68-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>050203</u> . | 6) <input type="checkbox"/> Other: _____ |

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Applicant's election of Species I (figure 8), claims 1-3, 8-16, 21-28, 33-40, 45-52, 58-64 and 68-70, in the reply filed on December 8, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 62-64 and 68-70 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 62, the claim recites that the control information is recorded in a "second area" and that the address data which is converted in accordance with a pre-set conversion rule is recorded in the "second area." However, the specification, pages 9-11, teach that the control information is recorded in an area that is outside, not within, the area where the address data which is converted in accordance with a pre-set conversion rule is recorded. "An encryption key may be recorded in a pre-set area for address data of the disc-shaped recording medium 1, such as in sector 127" (page 11, lines 10-12). Note: the address data which is converted in accordance with a pre-set conversion rule is recorded within area 5 (sector addresses 128 through 32757). For examination purpose only, the address data which is converted in accordance with a pre-set conversion rule will be considered recorded in the "first area," not "second area" as erroneously claimed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 8, 9, 12-16, 21, 22, 24-28, 33, 34, 62-64 and 68-70, as clear and understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Yeo et al. (USP-6,597,648).

Regarding claims 1, 3, 8, 9, 12, 16, 21, 22, 24, 28, 33 and 34 Yeo et al. discloses an apparatus for preparing a master disc (original disk) of a recording medium on which digital data is recorded in synchronism with pre-recorded address data (pre-pits or embossed marks). See figure 8. A pre-format signal generating means 1, 2 generates pre-format signals pre-recorded on the recording medium. The pre-format signals contain the address data. A recording means 4 records the pre-format signals from the pre-format signal generating means 1, 2 on the master disc, wherein the pre-format signal generating means 1, 2 converts at least a portion of the address data in accordance with a pre-set conversion rule to generate the pre-format signals. See col. 6, lines 53-64, which teaches "a controller 1 for controlling the subcode generator so that reproduction time information included in the sub-Q channel data is generated in the reverse order." See figure 9.

Regarding claims 2, 15, 27, 62-64, 68 and 69, Yeo et al. further discloses "that a program, which is needed to check whether or not the CD-ROM title is a legitimate production, is further provided in part of the program area other than the prescribed area" (col. 7, lines 33-39). Further regarding claim 62, the "prescribed area," or area including the reverse time addresses, is considered the claimed "first area," and the "part of the program area other than the prescribed area" is considered the claimed "second area" (see 112 rejection above). Further regarding claim 68, Yeo et al. anticipates that the "program, which is needed to check whether or not the CD-ROM title is a legitimate production," can be provided on an inner rim side of the area including the reverse time addresses, i.e., the second area provided on an inner rim side of the first area as claimed. Further regarding claim 69, Yeo et al. discloses a lead-in area as claimed (see col. 3, line 65), and a lead-out area is inherently provided on the outer rim area of the program area (first area) as claimed.

Regarding claims 13, 14, 25 and 26, Yeo et al. further discloses address generating means 2 for generating the address data, and address conversion area designating means 1 for designating an address data conversion area in accordance with the pre-set conversion rule, i.e., reversing time addresses. See figures 8 & 9. "During the generation of the channel data, the controller 1 makes the subcode generator 2 output reproduction time information in the reverse order for a chosen data. Specifically, the absolute time address or absolute frame number is generated sequentially for every one block of data (98 frames). For a predetermined number of blocks, the subcode

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generator 2 generates the absolute time address or absolute frame number in the reverse order" (col. 7, lines 11-18). Accordingly, the pre-format signal generating means 1, 2 includes the address comparator means and address conversion means as claimed.

Regarding claim 70, the recording medium (optical disk) disclosed in figure 8 is an optical disk in which an information signal is being recorded. Accordingly, the recording medium is considered a recordable optical disc as claimed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10, 23 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeo et al., as applied to the claims above, in further view of Kobayashi et al. (USP-6,192,018).

Yeo et al. discloses the invention as claimed, but fails to specifically teach that the address data is pre-recorded by wobbling a groove formed in the recording medium or master disc. However, Kobayashi et al. discloses a recording medium including guide grooves (groove tracks) for recording or reproducing data which are wobbled according to address information, in the same field of endeavor, for the purpose of "improving redundancy, compared with the method of recording addresses in advance as pre-pits by embossing or the like" (col. 1, lines 16-24).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yeo et al. such that the address data is pre-recorded by wobbling a groove formed in the recording medium or master disc, as taught by Kobayashi et al. A practitioner in the art would have been motivated to do this for the purpose of improving redundancy, compared with the method of recording addresses in advance as pre-pits by embossing or the like.

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Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yeo et al., as applied to claim 1 above, in further view of Sawabe et al. (USP-6,757,483).

Yeo et al. discloses the invention as claimed, but fails to specifically teach that the digital data is recorded on the recording medium using 8-16 modulation and encoding by a product code. Sawabe et al. discloses a mastering device (figure 9) for an optical disk, wherein digital data is recorded on a recording medium using 8-16 modulation and encoding by a product code (see col. 14, lines 40-52), in the same field of endeavor, for the purpose of formatting information into a standard which is recognized by conventional recording/reproducing devices.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yeo et al. such that the digital data is recorded on the recording medium using 8-16 modulation and encoding by a product code, as taught by Sawabe et al. A practitioner in the art would have been motivated to do this for the purpose of formatting information into a standard which is recognized by conventional recording/reproducing devices.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nagano and Miwa et al. each disclose an optical disk apparatus having copy-protection function. Masuhara et al. discloses address information recorded as embossed marks.

Claims 36-40, 45-52 and 58-61 are allowed.

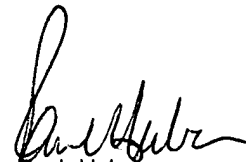
The following is an examiner's statement of reasons for allowance: the prior art of record considered as a whole fails to teach or suggest either:

1) an apparatus for recording digital data on a recording medium in synchronism with pre-recorded address data, the apparatus comprising: recording signal generating means for generating recording signals to be recorded on the recording medium, **wherein the recording signal generating means detects an area in the recording medium where at least a portion of the address data is recorded upon conversion in accordance with a pre-set conversion rule and the recording signal generating means decodes the converted address data pre-recorded in the area to generate the recording signals in accordance with the decoded address data;** or

2) a method for recording digital data on a recording medium in synchronism with pre-recorded address data, the method comprising the steps of: **detecting an area of the recording medium where at least a portion of the address data is recorded upon conversion in accordance with a pre-set conversion rule; decoding the converted address data pre-recorded in the area; and generating recording signals to be recorded on the recording medium in accordance with the decoded address data.** (bold language emphasized)

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Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.



Paul Huber
Primary Examiner
Art Unit 2653

pwh
May 27, 2005